National Institute of Environmental Health Sciences

Water security in North China and countermeasure to climate change and human activity

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Abstract:

This paper addresses the emergent issues by the case study of Haihe River Basin in North China. The advantage of the water international study and the background for the cause of these problems from natural change and in particular human activity are analyzed. The key points are addressed as four aspects: (a) the study of the water cycle process impacted by climate change and high intensity human activity; (b) water utilization related to new economic partner change, such as saving water model; (c) study on eco-hydrology, and the interaction of water and ecology impacted by climate change and human activity; and (d) reasonable water allocation that includs water diversion from south to north and saving water issue in the local areas. Several suggestions are proposed both oil the study on the water cycle, which is a very important base of water security in north China, and oil the application study of water resources and eco-environmental rehabilitation. These key issues will benefit both the advantage of water science and the sustainable development in China.

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Resource Description

Exposure : ☑

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Food/Water Security, Precipitation, Temperature

Extreme Weather Event: Drought, Flooding, Landslides

Geographic Feature: ☑

resource focuses on specific type of geography

Mountain, Rural

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: China, Other Asian Region

Other Asian Region: northern China

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: ☑

type of model used or methodology development is a focus of resource

Other Projection Model/Methodology

Other Projection Model/Methodology: reported SRES results in the review

Resource Type: ☑

format or standard characteristic of resource

Review

Timescale: ☑

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content